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# Challenging the User-Avatar Dichotomy in Avatar Customization Research

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A growing number of digital games and virtual worlds allow users to create a virtual self, commonly referred to as an 'avatar.' In digital games and virtual worlds, an avatar is the virtual-physical manifestation of the user within the game world. Essentially, the avatar is a digital body which is controlled by the user to attain agency within the virtual world. For many, the avatar is more than a visual representation of self; it is a vessel through which one projects oneself and develops an online identity. Therefore, the creation and customization of an avatar is considered a very meaningful process (Bessière, Seay, and Kiesler 2007).

The relationship between human and the customized avatar is unproblematically presented as an account of intentional user behaviours, positioning player avatars as objects whose customization is informed by one of three or four motivational archetypes—typically in relation to the desire for, or distancing from, identity fidelity. The resultant narrative, we argue, is almost always that of a user-avatar dichotomy. We argue that avatars are the result of an interplay—a series of actions and interactions within a complex network of actors. These interactions are influenced by a variety of factors, including affordances, constraints, assumptions, designs, relationships, and experiences.

To explore this re-framing, we look to Actor-Network Theory. Along with Michel Callon (1997) and John Law (2004), Latour is one of the primary developers of actor-network theory (ANT) (Latour 1987, 1992, 2005), an approach to research in the social sciences which not only includes non-humans in the study of social phenomena, but considers the ways in which both humans and non-humans form a heterogeneous network of material-semiotic relations. As a theoretical framework, an ANT approach encourages a widening of the analytical lens. For games researchers, an ANT approach reveals the actor-networks that are often just outside of the methodological scope of other frameworks but are still very much a part of the people and objects that we study. An ANT approach allows to find ways to capture the inner narrativity of the actors commonly overlooked in our methods, and to find new ways to make them visible.

The work presented here represents an ANT approach to the study of self-representation in games. Though the development of a novel analytical framework we aim to challenge the anthropocentric approach that is all too common to identity work in favour of an ANT approach. We argue that self-representation studies must break free of the user-avatar dichotomy in order to reveal how other factors, such as design practices, socioeconomic factors, digital and offline cultures, as well as researchers' own lived experiences and assumptions affect self-representational practices.

## Related Work

Massively Multiplayer Online Games (MMOGs) are often characterized as variants of text-driven multi-user Domains or MUDs. As previously stated, these early virtual communities were entirely text-driven virtual worlds. In these spaces, users not only utilized text to chat with one another, but they also used text to describe the chat room, the actions taken within this space, and even their virtual bodies. These virtual bodies were just as much a part of their online personae as the text they “spoke” to one another. In this way, the text-based virtual community was co-constructed by its members. Members were in agreement with and contributed to the details of their virtual world. These early virtual worlds provided users with a vehicle through which they could explore how they represent themselves and experiment with identity (Albright 2007; Bartle 2003; Dibbell 2001; Sundén 2001; Turkle 1997).

In their textual form, these objects were subject to few limitations; the level of detail to which users could describe characters, rooms, and items was bound only by the limits of their writing capabilities and imagination. Members of these virtual communities could be or do anything (Dibbell 2001; Turkle 1997). The shift from early textual representations to graphical representation provided users with new tools for interaction and identity. The same rooms, objects, and characters that were once textual in MUDs were now represented in graphical form. The addition of 3D graphics in virtual worlds allowed users to view their own virtual bodies or avatars. The appearance of users’ avatars can be manipulated with avatar creation interfaces. However, unlike the text-based avatars of earlier MUDs, users of graphical MMOGs are often limited with regard to how they represent themselves by the avatar creation interface. The quality, quantity, and range of customization options available to users is often pre-determined by game designers. Game designers have complete control over the aesthetic of every aspect of their games, including the player’s own avatar.

## Identity, other selves, and multiple selves

Early work examining identity in online environments such as MUDs and other text-based virtual communities revealed that the affordances of these environments facilitated a multitude of identity expressions, including other selves and multiple self-representations or multiple selves (Bartle 2003; Bruckman 1992, 1996; Dibbell 2001; Turkle 1997) and as a means to escape the widely-enforced gender dichotomy of “real life” (Sundén 2003).

This fragmentation of self may seem anomalous—a consequence of having one’s interactions mediated by a computer, but Turkle suggests that we are already accustomed to managing multiple selves in our daily lives and that this sense of multiplicity easily extends into virtual worlds (Turkle 1997). Social contexts elicit performative shifts wherein we choose which aspects of ourselves to present to others, and which cues to suppress in order to maintain the appropriate or desired impression (Goffman 1959). Goffman stresses the importance of both verbal and nonverbal cues in our ability to generate impressions of ourselves in social situations. Goffman’s presentation of self features heavily in some writings on online identity—especially those that are focused on performance and the maintenance of multiple selves (Bullingham and Vasconcelos 2013; Kafai, Fields, and Cook 2010b; Martey

and Consalvo 2011). In his work, Goffman evokes a dramaturgical analysis; the study of social situations as a theatre performance. Goffman frames social performances as having actors wearing costumes. These performances are observed by an audience, and often, we rely on other actors to maintain our performances for us. For example, if we perform an act that is considered "out of character", other actors may choose to ignore the act to help us save face and preserve the identity performance. The space where we can truly be ourselves is compared to the backstage area of a theatre—a space that is not visible from the audience and where actors in a play are commonly able to drop out of character in between scenes.

In face-to-face communication, Goffman proposes that cues fall broadly into two categories: '*expressions given*' and '*expressions given off*' (1959). The former are understood to be verbal where the latter include the gamut of non-verbal cues, many of which we have less control over, such as body language or facial movements that are given off during communication and interaction. Since we anticipate that people may be dishonest in how they present themselves, we rely on '*expressions given off*' as a sort of litmus test, used by others in order to assess the authenticity of the speaker's mood or motives. Albright (2007) cites the works of others that state the obvious: information communication technologies (ICTs) allow us to carefully craft and control the digitized equivalents of our '*expressions given off*.' In many cases, online interactions occur almost entirely in the absence of these '*expressions given off*', and many of our '*expressions given*' are reduced to textual interactions.

The effects of ICTs on Goffman's work are illustrated in Walther's "*hyperpersonal interactions*" (Walther 1996). Taking the affordances of computer-mediated communication into account, Walther proposes the following framework for understanding how users both mediate and mobilize these affordances in evaluating and managing online personae:

- 1.) optimization of self-representation (due to latency)
- 2.) receiver forms impressions by "inflating" tiny pieces of information
- 3.) user can thereby re-allocate cognitive resources used for non-verbal language to #1 (textual optimization)

Essentially, the latency in computer-mediated-communication (whether generated by hardware/software, or artificially via users evoking *away from keyboard* or 'AFK' moments), not only allows users to carefully manage both their '*expressions given*' and '*expressions given off*', it also allows them to re-allocate cognitive resources to '*expressions given*' that would have otherwise been used to manage '*expressions given off*'. Depending on the medium of communication, the latter may take on many different forms (photo sharing, scripting an avatar's body language such that it aligns with the *expressions given*, etc.). If the user on the other end is emotionally invested in the success of the performance, they subconsciously support it by enhancing the tiny fragments of identity data they receive and using these pieces to construct a complete impression of the user. Walther proposes that computer-mediated interaction may be more intimate and positive than face-to-face interaction. ICTs support identity play through the anonymity of the Internet, as well

as the interplay between “actors” in the presentation of self as described in the work of Goffman.

While the prevalence of multiple and false identities, the degree to which adopted personalities can differ from our own may vary. Some people enter virtual communities for the explicit purpose of role playing or being someone else, while others may choose to create an accurate virtual representation of themselves (Turkle 1997). The anonymity that is unique to online social interaction presents the user with the ability to create a mask through which (s)he may express an alternate, or perhaps even an ideal self—either physically or socially. In describing the mechanics of identity in MUDs, Turkle offers the following insight:

MUDs imply difference, multiplicity, heterogeneity, and fragmentation. Such an experience of identity contradicts the Latin root of the word, *idem*, meaning ‘the same.’ But this contradiction increasingly defines the conditions of our lives beyond the virtual world. MUDs thus become objects-to-think-with for thinking about postmodern selves. Indeed, the unfolding of all MUD action takes place in a resolutely postmodern context. There are parallel narratives in the different rooms of a MUD. The cultures of Tolkien, Gibson, and Madonna coexist and interact. Since MUDs are authored by their players, thousands of people in all, often hundreds at a time, are all logged on from different places; the solitary author is displaced and distributed. Traditional ideas about identity have been tied to a notion of authenticity that such virtual experiences actively subvert. When each player can create many characters in many games, the self is not only decentred but multiplied without limit. (Turkle 1996)

Stone (1996) takes Turkle’s multiple selves one step further and describes how powerful these other selves can be. Her famous story of the “cross-dressing psychiatrist” features Stanford Lewin, a male psychiatrist who decided to masquerade online as female neuropsychologist ‘Julie’. After some suspicion within the community, Stanford “came out” to a few of Julie’s closest friends, but found he was not able to maintain Julie’s friendships or make friends as easily as he had been able to as Julie. He “simply didn’t have the personality to make friends easily on-line” (Stone 1996, p.77).

If Stanford was Julie, why did he have such a hard time making friends online? While others have argued that multiple-selves all tie back to a “root persona” or “sovereign subject” (Wajcman 2004), Stone argues that Julie’s online identity was complex, real, and distinct from Stanford’s. As Plant notes, by the time other users were becoming suspicious of Lewin, he was “in the process of becoming Julie” (Wajcman 2004, p.68). However, Wajcman (2004) challenges the ideal of separate body and mind online. She suggests that, while computer-mediated communication does remove bodily cues, it does not create new identities. “Just because all you see is words, it does not mean that becoming a different person requires only different words, or that this is a simple matter” (Wajcman 2004, p.69). Essentially, she suggests that you can try to choose different words, but the ones at your disposal are based on socialization. Women (especially disabled women) became suspicious of Julie the more they interacted with her. “Bodies play an important part in what it means to be human and gendered” (Wajcman 2004, p.70).

In 2001, Berman and Bruckman (2001) sought to study the nature of identity cues in a multi-user text-based space online. The experimental environment was named "the Turing Game", inspired by the Turing test—a test used to evaluate the ability of an artificial intelligence to respond to text-based input such that its responses are indistinguishable from those of an actual human (Turing 1950). In *the Turing Game*, a panel of users are said to belong to a group (e.g.: female). One or more panel members actually belong to that group and the rest are impostors. Audience members observe responses to questions and use those responses to gauge the authenticity of panellist identities. Panellist identities are revealed at the end of the game. The authors argued that, in the Turing Game, there was no opportunity for what Goffman (Goffman, 1959) calls 'stage setting' and Stone (1986) calls 'appearance management'.

The works of Turkle, Goffman, and Bruckman are common entry points into identity work in games and MMOGs. This foundational work helps us to understand how ICTs are able to afford identity play and experimentation online. However, these works are discussed in the context of textual online environments whose affordances were quite different from MMOGs and social virtual worlds.

### **Self-Representation in MMOGs**

The character creation interfaces for virtual worlds vary greatly, but generally involve presenting the user with customization options that result in a set number of possible permutations. Some character creation interfaces provide users with the ability to make adjustments to many of these features with widgets in the form of sliders and colour wheels (Pace, Houssian, and McArthur 2009). Some avatar creation interfaces limit users to a small, finite number of options. Thus, avatars are generally customized via the selection of specific attributes (skin colour, hair colour, etc.) to form a desired permutation that "stands-in" for the user in virtual space. The degree of complexity offered via character creation interfaces has commonly been referred to in terms of fidelity, where a "high fidelity" character creation interface is one that is complex and a "low fidelity" interface would be one that is simplistic in either the quantity and/or the quality of options provided (Ducheneaut, Wen, Yee, and Wadley 2009).

What's interesting about the recent ubiquity of the terms "high fidelity" and "low fidelity" in avatar creation interfaces is that they imply "the quality of being faithful" when the term really only applies to the degree to which the interface *affords* identity fidelity. Whether or not users *can* accurately represent themselves in an MMOG is an important question. We would argue, however, that it is important not to conflate the complexity of an interface with the practice of identity fidelity. To ontologically link user practice (identity fidelity) with design (interface complexity) in this way disrupts the potential for an affordance-based discourse, while simultaneously assuming that a complex interface only yields one type of user practice. Users who encounter complex interfaces may design complex avatars that look nothing like their real-life bodies. Therefore, we would argue that identity fidelity is a term that should be used with caution.

Three recent studies looked to avatar customization trends in popular virtual worlds and MMOGs in order to identify motivational factors that impact the choices users make (Ducheneaut, et al. 2009; Kafai, et al. 2010b; Neustaedter and Fedorovskaya 2008). Ducheneaut et al. (2009) conducted a study on avatar appearance in three popular virtual worlds: *World of Warcraft*, *Maple Story*, and *Second Life*. Using survey data and screenshots of player avatars from 180 participants, they identified three trends evident in player-avatar customization practices: idealized self, standing out, and following a trend (Ducheneaut et al., 2009). Users who were motivated to create an idealized self may choose to create an avatar that bears some resemblance to their real-life appearance, but with idealized or desired features (e.g., taller, thinner, more hair, etc.). The second factor—standing out—applied to users whose choice in avatar reflects a desire to have an unconventional look within the game world. The authors categorized customization choices under this category via statements such as, “(1) I make avatars that stand out as much as possible, (2) I often create avatars that have an unconventional look and (3) I make avatars that are as different from me as possible” (Ducheneaut et al. 2009, p.1152) The third motivational factor—following a trend—describes avatars that have been modified to resemble a celebrity or reflect a popular trend in either the real world or the virtual world.

We are most interested in Ducheneaut et al.'s use of the term “high fidelity” to describe a highly comprehensive or complex avatar creation interface, such as the one found in *Second Life* (2009). The authors define the term stating, “a relatively high fidelity avatar creation system like the one in [*Second Life*] can motivate users to reproduce more of themselves” (Ducheneaut, et al. 2009, p.1155). Here, high fidelity is meant to describe an avatar customization interface so complex that it is capable of producing representative avatars. While the complexity of the interface in *Second Life* arguably makes it inaccessible to novices in a meaningful way (McArthur, Teather, & Stuerzlinger 2010), the fact that it *is* complex does not necessarily mean that it will be used to create a “high quality” reproduction of the user, nor does its complexity inherently motivate users to create a duplicate virtual body. We would strongly argue that we must be careful not to problematically link “complexity” with “fidelity” when describing these interfaces in terms of self-representational practices.

In a similar study, Neustaedter and Fedorovskaya (2008) identified four motivational factors contributing to avatar customization trends in *Second Life*: realistics, ideals, fantasies, and roleplayers. These factors were conceptualized after a four month “cultural immersion” and a series of open-ended interviews with 23 participants in *Second Life*. According to the authors, the first factor—realistics—describes users who consider their virtual world life to be an extension of their real-world life and therefore choose to create an avatar that most closely resembles themselves. The second trend—ideals—is more in line with the idealized self described by Ducheneaut et al. (2009), wherein users construct an avatar that is similar to their offline self, but with desired modification or enhancement to specific features. Avatars created under the “fantasies” trend are avatars created with escapist motivations; for these users, the virtual world is a space in which one gets to live as someone else. Lastly, “roleplayers” are described as users who, like fantasies, enter the virtual world to experience life as someone else, but differ from this category in that they do not maintain identity continuity over time. The authors note that avatar appearance editors may or may not meet users’ needs depending on which of the four factors represent their virtual lives.

A particularly interesting component of Neustaedter and Fedorovskaya's (2008) paper is the discussion surrounding the social stigma of default avatars in *Second Life*. Upon joining *Second Life*, new users are prompted to choose an avatar from one of several default configurations before entering the virtual world. These default avatars are provided by the developers of *Second Life*. Once in world, many users learn to customize the appearance of their avatar through use of the appearance editor, as well as potentially buying, acquiring, or making new clothes, hair, animations, for their avatar to wear or use. Once members of the community become familiar with the malleability of *Second Life* avatars, they are easily able to identify default avatars. The authors note that so-called veteran users identify users with default avatars as being "newbies." The effect of this social stigma is twofold: veterans view newbies as lacking in ability and assume that any social interaction with a default avatar will be related to technical issues surrounding the virtual environment. The second effect is that newbies feel the need to modify the appearance of their avatar as quickly as possible so that their avatar signifies "belonging" to the community.

In a similar study, Kafai et al. (2010b) studied avatar customization trends in the online virtual world *Whyville*. *Whyville* is a rich site for study as it is a virtual world populated by tweens; a group rarely, if ever, represented in online identity work. Self-representation in *Whyville* presents a unique opportunity for doing identity research for two reasons: firstly, *Whyville* avatars utilize player-generated content in their customization, similar to avatars in *Second Life*. Secondly, tweens are *already* trying on new identities in real life as they "transition from childhood into adolescence" (Kafai et al., 2010b, p. 25). The significance is the space between the transient nature of their offline identities, and their expressions of self via their online identities. Where self-representational practices are often discussed as a 1:1 ratio, where one user is compared to one avatar at a time, Kafai et al. acknowledge that the user, in this case the tween, is at a significantly formative stage in their (offline) identity development. The transient nature of the participants' identities is acknowledged because of the demographic they represent, but users outside this demographic may also find their offline identities in-flux, if only situationally. This is highlighted by the works of Goffman (1959), but absent in many studies examining self-representation in virtual worlds and games (Ducheneaut, Wen, Yee, and Wadley 2009; Neustaedter and Fedorovskaya 2008; Yee, Ducheneaut, Yao, and Nelson 2011).

Through a series of surveys and interviews (n = 44), the authors surveyed users of *Whyville* in order to better understand the self-representational practices of this particular demographic. As with *Second Life*, Kafai et al. (2010b) found that newbie avatars (referred to in *Whyville* as "tators") stand out due to their obvious lack of customization. This finding is similar to the social stigma attached to the use of a default avatar as reported by Neustaedter and Fedorovskaya (2008, 2009). In both virtual worlds, being recognized as a newbie carries a certain social stigma with expert users.

Kafai et al. (2010b) also note that the phrasing of some of their survey questions led to some interesting insights into how participants interpreted identity fidelity in terms of general vs. specific questions. For example, when asked whether their avatar was like them or not, almost all participants answered "no". However, follow-up questions revealed that the initial question might have been phrased in such a way that it made



assumptions about participants' own understanding of self-representation. For example, when asked if her avatar was like her or not, one participant said "no". When asked how they were different, Kelly elaborated by saying, "I don't have a bear head" (Kafai et al. 2010b, p.33). The authors note that the structure of their interview questions revealed "...a mix of broader self-representation, aesthetic production, and functionality as motives for creating particular avatars" (Kafai, et al. 2010b, p.33). This point is a significant one, as it illustrates the dangers of relying entirely on data derived from self-reporting. In this case, ambiguity in the line of questioning had an impact on the authenticity of participant narratives.

Similar to the studies presented by Ducheneaut et al. (2009) and Neustaedter and Fedorovskaya (2008, 2009), participants in the *Whyville* study (Kafai et al. 2010b) identified four motivational factors that contributed to how they chose to customize their avatar: "the pure aesthetics of a look, to embody some aspect of their 'real' selves, to align oneself with or against a popular trend, and for a functional reason like disguise" (Kafai et al., 2010b, pp. 33 - 34). Here, the authors also note the tension in creating an avatar for oneself versus the act of customizing an avatar for others' aesthetic pleasure.

Within each group of motivational factors there seems to be one group of participants who choose to embody some aspect of their real selves—even if it is an idealized self. There are others who choose to play with aesthetics, and there are those participants who customize an avatar with the express purpose of being someone else. Only a few of these trends can be said to exemplify identity fidelity or any sort of visual link to the "sovereign subject." In the case of fantasies, role players, disguises, and aesthetics, there is some aspect to the representation that involves identity play or another self. Returning to the work of Ducheneaut et al. (2009), interface complexity can facilitate identity fidelity via motivation: a "high fidelity" avatar creation system *can* motivate users to reproduce their offline bodies online. However, sophistication is not directly linked to identity fidelity: users can strive for identity fidelity even in the least complex systems. The distinction in sophistication does need to be made, but the choice in wording is problematic.

These papers have more in common than their findings: methodologically speaking, all three sets of motivational factors were ascertained via online ethnographic methods (online interviews, surveys, "cultural immersion" via online ethnography, etc.). The findings reported in each of these papers are valuable but are too conveniently reductionist—neatly placing users into one of three or four categories in order to understand how they came to create their virtual bodies. Additionally, the authors heavily relied on self-reporting and the study of "finished" avatars. The study of these avatars and their players can tell us a great deal about the virtual worlds in which they play, but they paint a very limited picture. How did the design of the game's character creation interface influence the design of their first avatar? How did they come to make their subsequent avatars? What impact does social play have on the look of their avatar?

In order to begin to address the first of these questions, I argue that we must understand how character creation interfaces, as well as their influence on self-representational practices, have been studied.

## I, Avatar

Prior to discussing the mechanics of avatar customization, it is important to more closely examine the complex relationship between the avatar and its user. The visual appearance or the persona of the avatar may bear striking resemblance to that of the creator, or the avatar may be a means for the creator to experiment with aspects of her/his identity within an online social context.

Since it is not uncommon to present different versions of ourselves in real life, this behaviour easily extends into virtual environments. As stated by Rehak, avatars are “ambassadors of agency”; they are vessels for action, but do not directly represent the personality of the individual at the helm (Rehak 2003). Thus, the behaviour of the avatar may not be typical of the mannerisms of the pilot behind the screen.

James Paul Gee takes the complex relationship between player and avatar further by breaking it down into three identities: virtual, real and projective. The virtual identity belongs to the avatar; it represents the personality of the character being played. The real identity is that of the person piloting the avatar. The projective identity is the interface between the two and the “feedback loop” through which values are projected upon the virtual identity by the real identity. Essentially, projective identity is the space in which the player evaluates and re-evaluates the morality that guides the actions of her/his avatar (Gee 2003).

Nick Yee and Jeremy Bailenson (2007) proposed the theory of the “Proteus Effect” to characterize some of the ways in which avatar modification affects how the avatar interacts with others in virtual environments. The effect is named after the Greek God Proteus, who could change his shape at will. Yee (2007) presented the results of four studies designed to determine how avatar attributes such as attractiveness and height made users act more confidently in virtual environments. For example, one of the studies presented in his dissertation concludes that participants with taller avatars negotiated more aggressively with others in the virtual environment than participants with shorter avatars. Interestingly, Yee found that these behaviours can also persist outside of the virtual environment, showing that the transformation is not limited to how users behave in the virtual environment. His findings are important as they illustrate not only how much effect we have on our avatars, but also how much effect our avatars have on us.

## Representation in a Perfectly Hegemonic World

Almost all MMOGs limit players to two sexes, yet text-based environments allowed users to move beyond this heteronormative binary (Sundén 2003). Present-day MMOGs tend to lock users into the male/female binary, leaving little room for “high-fidelity” in the GLBTQ population. Sundén acknowledges how the design of avatars, both in how they are “constructed” and how they are programmed to perform in-game, puts many users in tension with the heteronormative design of their second selves: “The design of avatars—how they look, move, feel, fight, jump, speak, laugh, flirt, dance etc.—speaks volumes about social and cultural perceptions of sexed bodies. But equally important are the ways in which players are collectively imagining who ‘the player’ is, and how such fantasies are connected (or disconnected) with the politics of the interface” (Sundén 2009, p.3).

The research of Kafai et al. (Kafai, Fields, and Cook 2010a) and Consalvo (2003) highlights issues of ethnic representation in MMOGs. For example, in studying the tween virtual world *Whyville*, Kafai et al. (2010a) note the general lack of non-white faces available to players. Consalvo's work on the character creation interface in *The Sims* reveals that the interface defaulted to a light-skinned, middle-aged male every time, despite the fact that it is possible to create Sims that are not white and/or are not male (Consalvo 2003). Consalvo argues that, "[b]ecause the game encourages exploration and experimentation with Sim characters, it is likely that most players will quickly move past this first option with little thought, yet the default image of the hegemonic white male showing up first does reinforce the traditional notion of white men being the 'norm' in American society, from which all others then deviate" (Consalvo 2003, p.185). It is programmatically possible to set-up the interface so that it begins with some randomly-generated avatar, the fact that the designers chose—consciously or not—to have it always default to a white male does indeed reproduce hegemonic white masculinity as the cultural norm.

This critique is often confronted with the logic that MMOGs are largely based on fantasy or fictional worlds and are thereby granted some kind of artistic license that is not subject to accountability. Higgin (2009) critiques this stance, stating, "[t]he tendency then is to accept as harmless any creations within a fantasy world because of its extradimensional construction. Such an assumption is dangerous given that fantasy worlds are populated by re-imagined signs with real and significant meanings outside of the fantasy. Thus, a fantasy world's products cannot be solely regarded within the internal logic of that world because the various meanings of its parts still have an originary meaning that cannot be discarded without losing the decipherability of that product" (Higgin 2009). Arguably, to dismiss any critique pertaining to representation because the game is "virtual" or "fantasy" is a stance that is not only problematic, but also problematizes any claims pertaining to the experience or importance users place upon their avatars. Authors like Gee (2003) describe the relationship between user and avatar as being one of personal investment.

Salen and Zimmerman (2004) use the term "cultural rhetoric" to describe games as ideological systems based on offline ideologies. Bogost (2010) goes one step further than Salen and Zimmerman in suggesting that video games are capable of a new kind of rhetorical expression, one he refers to as "procedural rhetoric." For Bogost, procedural rhetoric is an argument expressed through computer code, where a game's rules and mechanics convey an argument about the state of things—an argument that must be *read* by actually playing the game. The ability to read a procedural argument requires a specialized literacy, one Bogost refers to as procedural literacy. He states: "...videogame players develop procedural literacy through interacting with the abstract models of specific real or imagined processes presented in the games they play. Videogames teach biased perspectives about how things work. And the way they teach such perspectives is through procedural rhetorics, which players 'read' though direct engagement and criticism" (Bogost 2010, p.260). Thus, it is clear that ideologies can be encoded, by programming or by design, and that such ideologies have not gone unnoticed.

In the context of game character design, these ideologies are often seen as heteronormative and Caucasian, based on the ways in which player characters and non-player characters are represented in games (Consalvo 2003; Higgin 2009;

Leonard 2006; Pace, et al. 2009). While the idealized player base may not take issue with the representation of minorities in games, many other player communities, in particular the GLBTQ community, have adopted what Sundén refers to as transgressive play, which she describes as “play against the ‘ideal’ or ‘implied’ player of the game, of playing the game and bending the rules in ways not anticipated by design...as innovation and, possibly, subversion, of finding, exploring and exploiting loopholes in the game fabric” (Sundén, 2009, p.2)

In order to understand how these other factors contribute to self-representation in games, we look to Actor-Network Theory as a theoretical framework; as a way of making these actors visible. By identifying and tracing these associations, we can break free from the player-avatar dichotomy and make visible the multitude of actors who are co-constructing our avatars with us.

## Theoretical Framing

In his study of social phenomena, Latour is concerned primarily with our interest as researchers in 'the social', especially as the word itself has been problematized within the social sciences. The issue, he argues, is that the word 'social' began to “mean a type of material, as if the adjective was roughly comparable to other terms like 'wooden', 'steely', 'biological', 'economical', 'mental', 'organizational', or 'linguistic'” (Latour 2005, p.1). He goes on to suggest that “[a]t that point, the meaning of the word breaks down since it now designates two entirely different things: first, a movement during a process of assembling; and second, a specific type of ingredient that is supposed to differ from other materials” (Latour 2005, p.1). Thus, he argues, that to only study that which has come to represent 'the social' actually excludes other relevant actors necessary in truly understanding social processes.

Looking to ANT, Latour aims to redefine sociology “not as the 'science of the social', but as the tracing of associations... a type of connection between things that are not themselves social” (Latour 2005, p.5). The emphasis here is not only on the “tracing of associations” within the network of social phenomena, but also in being able to identify all of the actors who contribute to the same social phenomena, whether human or non-human. Through studying this networked association of actors, social scientists can truly study the social.

The actors identified in social phenomena have traditionally been human participants, perhaps due to the fact that our agency is a fundamental property of our humanness. This focus on anthropocentric discourse holds true not only within the field of sociology, but also within the fields of game studies and HCI. ANT differs from traditional approaches in that it involves the controversial attribution of agency to non-humans. Latour argues that the exclusion of non-humans in the past was “not only due to the definition of the social used by sociologists, but also to the very definition of actors and agencies most often chosen” (2005, p.71). He goes on to suggest:

If action is limited a priori to what 'intentional', 'meaningful' humans do, it is hard to see how a hammer, a basket, a door closer, a cat, a rug, a mug, a list, or a tag could act. They might exist in the domain of 'material' 'causal' relations, but not in

the 'reflexive' 'symbolic' domain of social relations. By contrast, if we stick to our decision to start from the controversies about actors and agencies, then *any thing* that does modify a state of affairs by making a difference is an actor—or, if it has no figuration yet, an actant. Thus, the questions to ask about any agent are simply the following: Does it make a difference in the course of some other agent's action or not? Is there some trial that allows someone to detect this difference? (Latour 2005, p.71)

To date, research on user-created avatars tends to focus on users and their preferences or choices, perpetuating a user-avatar dichotomy. ANT has already been adopted by a few in game studies (e.g., see Giddings 2009; Giddings and Kennedy 2008; Taylor, McArthur, and Jenson 2012). By leveling all actors, human and non-human, to the same status, an ANT approach allows us to view the network of actors and trace their associations more readily than an approach that ascribes hierarchies to its objects of study. As Latour suggests, by “render[ing] the social world as flat as possible” (Latour 2005, p.16), it becomes possible to view all nodes in the network of a given social phenomena—even those nodes which have previously been overlooked or rendered invisible through research. In a flattened network, the user-avatar dichotomy is repositioned in such a way that other actors, previously overshadowed, are more readily seen. This is the contribution we aim to make in this paper.

## Interface Affordances

The reworked relationship of actors and agency as offered by ANT is an important one, as I am also interested in the study of interface affordances. The term affordance originated with the work of Gibson (1977, 1979) and was later adopted by the HCI community through the work of Donald Norman (1988). Within the HCI community, interpretations of the concept of affordances have become increasingly diverse since Gibson's work (Kaptelinin and Nardi 2012). Despite nuanced conceptual shifts, the term has generally held to refer to *action possibilities* afforded by the environment. ANT challenges the way we consider character creation interfaces. Through their affordances, I argue that they too are actors; actors that *co-construct* an online identity with the user.

Much of the literature on avatar customization not only privileges human actors over non-human actors, but also privileges user choice (via the process of avatar customization) over interface affordances. Player avatars are discussed in terms of identity fidelity or the kinds of avatars users like to create, as though they arrive at character creation interfaces already knowing what kind of avatar they will end up making. Suchman (2006) examines the tension between interaction and intention, challenging “traditional assumptions regarding purposeful action and shared understanding” (2006, p.69). Using the term “situated action”, Suchman proposes that the actions we take when interacting with interfaces depends on “material and social circumstances” (2006, p.70). In the context of avatar creation, even if users do arrive at these interfaces with customization strategies in mind, the avatar they create is a result of situational circumstances that contributed to the creative process, including co-situated players and interface affordances (McArthur and Jenson 2015; McArthur 2017). For example, as noted in our previous work, players of faction-

based MMOGs who wish to play together must choose avatar races that are technologically afforded such collaboration (e.g., races from the same faction). In making this choice, many players immediately lose close to half of the available avatar customization options.

Affordances are one facet of situated actions. The affordances of avatar creation interfaces challenge the assumption of plans regarding avatar customization. This is not to say that users indiscriminately customize their avatars. Commonalities in player avatars across games have been noted, a phenomenon referred to by Celia Pearce as a “trans-ludic identity”—however, even Pearce notes that interface affordances regulate the expression of these identities (Pearce and Artemesia 2009). In an auto-ethnographic study conducted by the author of this article, the following image shows how difficult it can be to re-create the same avatar across different avatar interfaces. The affordances (governed somewhat by the game’s aesthetics) mediate this expression of identity.

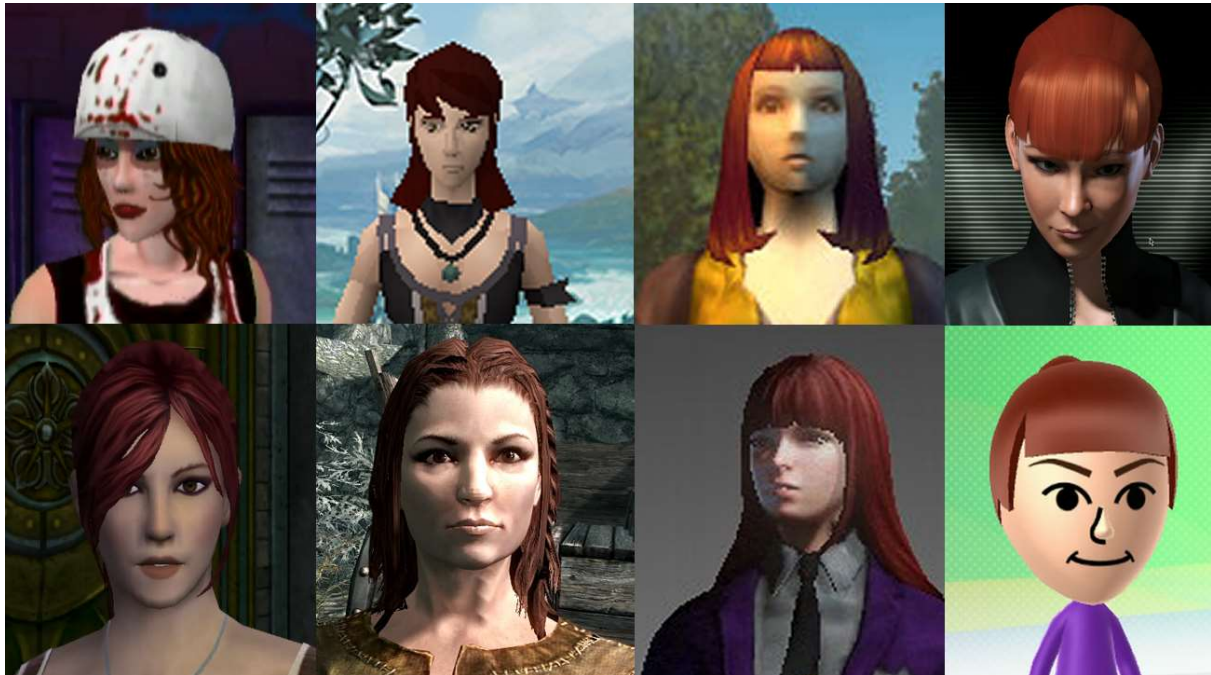


Figure 1. Trans-ludic avatars of the paper's author: Victoria McArthur

Anthropologist James Wertsch (1998) reconceptualizes mediation (the tension between human actors and, in this case, computer interfaces) in terms of how systems may limit, rather than facilitate, action. Wertsch draws attention to the ways in which computer interfaces shape interactions and potentially limit the ways in which we represent ourselves. He explains:

Most discussions of mediation view it in terms of how it empowers or enables action... However, a narrow focus on the kinds of empowerment provided by cultural tools gives us only a partial picture and one that is benign in an important sense. It does so because it overlooks a counter-vailing, though equally inherent,

characteristic of mediational means--namely, that they constrain or limit the forms of action we undertake (Wertsch 1998, pp.38-39).

To date, research on user-created avatars tend to frame the interface in, as Wertsch suggests, a benign and incomplete way. Interfaces are discussed in terms of quality and quantity of choices available to players but are ultimately framed as tools that facilitate the customization of a digital avatar. So, while it is tempting to understand avatar creation interfaces in terms of how they enable users to create and customize their own avatars, it is important not to overlook the ways in which these same interfaces also limit representation.

Returning briefly to Norman's (1999) perceived affordances, in order for a character creation interface to fulfil the desired representational composition, the interface must not only allow for the desired avatar to be built, but users must also perceive that this is possible. Kannengiesser and Gero (2012) describe three different kinds of affordances relating to perception: reactive, hidden, and reflexive. It is the first of these kinds that we are most interested in. Kannengiesser and Gero explain, "[a] reactive affordance is an action possibility that is selected from among a set of action possibilities. The process of selection is independent of changes in the user's current goals and expected classes of concepts. Variations over time are often the result of the user acquiring new knowledge from previous interactions" (Kannengiesser and Gero 2012, p.54). Thus, in our study of affordances, we are equally interested in the range and presentation of customization options available as well as how users interact with and negotiate these affordances.

## Tracing the Actor-Network

With all of this in mind, how do we begin to imagine self-representation as being guided (constrained and mediated) by more than just a human actor (player) wielding a tool (interface)? Is it possible to take a step back and view the avatar as part of an actor-network—as just one actor contributing to identity performance on a virtual stage? The aforementioned factors: user, interface affordance, context, co-situated players, etc. are all shown to be in-play, so why have these actors been rendered invisible by earlier work on avatar customization?

Arguably, identity in games is often framed in relation to the offline self. This is the origin of the dichotomy: human and avatar. By taking a step back and considering a much more complex actor-network, we can expand upon our theoretical framing to allow for four themes: *the self*, *affordances*, *aesthetics*, and *co-situated play*.

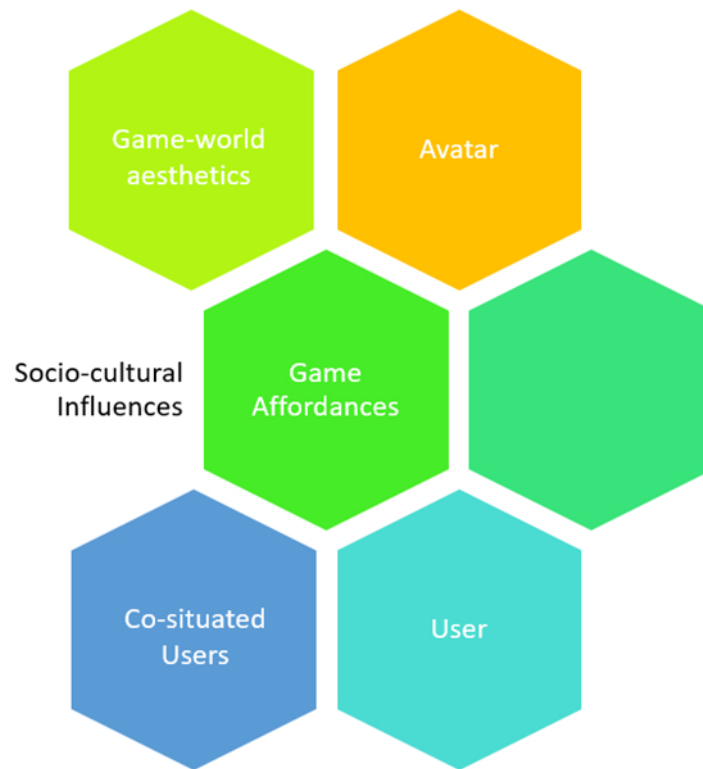


Figure 2. Tracing the actor-network of self-representation in games.

Although the player-avatar dichotomy is limiting with regard to identity theory, we must acknowledge that avatars are always built in relation to the self. The use of the term “high fidelity” by Ducheneaut et al. (2009) implies a link between interface complexity and the self in a seemingly benign way, but ultimately strengthens the bond between the avatar and the self through digital visual self-representation. The term *Mii*, used to name Nintendo’s avatars, reifies this relationship within gaming culture. Therefore, we would suggest that *the self*, even when negated, has an impact on plans and situated actions and is still a key actor in this network.

The second theme, *affordances*, is the impetus for this research. The range of customization options, as well as their perceived *availability* to the player (perceived affordances) have an impact on self-representation. In the context of plans and situated actions, affordances, or lack thereof, determine whether or not we can act on our plans when creating an avatar. When our plans cannot be fulfilled, when they are not afforded by the interface, we must seek out alternative options that are agreeable to create our avatars.

The theme of *affordances* is connected to the third theme: *aesthetics*, since the range of customization options are often confined to those which are predetermined to “belong” to a predesigned game world. The range of options may be further limited by playable races or factions. Aesthetics are another kind of affordance. They are ideological boundaries, imposed upon players by developers to ensure that everything in the game world aligns with the designer’s vision. *Aesthetics* are not



always limiting—*Saints Row IV* is an example of an identity sandbox—a playful space that allows for a great deal of flexibility in terms of self-representation. However, it is far more common for aesthetics to limit affordances, which can be, in some cases, highly problematic and exclusionary.

Finally, the fourth theme is *co-situated play*—defined as two or more players who are playing the same game together. Co-situated play has been demonstrated to have an impact on self-representational practices (McArthur and Jenson 2015). In multiplayer spaces where there is faction-based segregation amongst the game's playable races, how does this segregation affect self-representation when we have chosen to play *with* someone else? These choices, in many cases, result in a reduced capability to represent oneself—authentically or otherwise—a situated action that directly impacts our plans. The desire to play with one's peers, or to play for a particular faction, limits self-representation.

## Conclusions

The work presented here is not intended to undo the work of others who have theorized player avatar customization, but to illustrate the kinds of nuanced data that can be obtained through intimate lab-based observation of self-representation in real time. Much of the related work reports findings that are derived from self-reporting or studying complete avatars to understand user customization strategies. These approaches reduce these practices into oversimplified types, leaving little room for understanding the complex network of actors and actants contributing to the process of avatar customization. Additionally, studying existing avatars tells us little of the process by which that avatar came to be. The tension between plans and situated actions is sidestepped in favour of plans—where avatars are simply the product of pre-existing customization strategies.

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